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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,660	10/06/2003	Bradley J. Eldred	MICROPURE-01	4115

7590 02/27/2006  
Law Offices - Eric R. Benson, Esq.  
6A Hillside Lane  
Westford, VT 05494

EXAMINER
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CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,660	<b>Applicant(s)</b> ELDRED, BRADLEY J.	
	<b>Examiner</b> MONZER R. CHORBAJI	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 67-69 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67-69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

**This non-final action is in response to the amendment after final received 11/14/05**

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swicegood (the Kitchen Physician) in view of Cooper et al (U.S.P.N. 6,379, 720) and further in view of Kobayashi et al (U.S.P.N. 4,909,986).

With respect to claim 67, the Swicegood reference teaches an aqueous composition having grapefruit seed extract (NutriBiotic Grapefruit Seed Extract) diluted in glycerin (page 1, paragraph 1 used for disinfecting drinking water (the user selected fluid, page 3, paragraphs 6-7). The Swicegood reference further teaches (pages 2-3) various small concentration values for the disinfecting composition; however, the reference fails to recite the use of copper metal and also fails to teach the concentration

values disclosed in claim 67. The Cooper reference, which in the art of disinfecting aqueous systems by combining plant extract (Hops extract) with biocides, teaches the following: a hops extract concentration range (col.3, lines 37-38) between 0.1 to about 10 ppm (ppm = mg/L) and copper sulfate as the source of copper ions at a concentration range (col.4, line 14 and lines 25-27) between 0.1 to about 10 ppm. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the concentration of the grapefruit seed extract in the composition of the Swicegood reference and to additionally include the copper sulfate biocide since plant extracts at such a concentration range are effective in controlling biological fouling (Cooper reference, col.3, lines 31-33) and adding copper sulfate to the composition of plant extract results to superior disinfecting results with significant less use (Cooper reference, col.4, lines 28-30).

With respect to claim 67, the Cooper reference fails to teach the use of glycerin. The Kobayashi reference, which is in the art of treating liquids by spraying a deodorizing liquid composition onto liquids, teaches including a preservative or antiseptic compound such as glycerol (col.9, lines 57-62) into the deodorizing composition at legally accepted levels. Furthermore, the Kobayashi reference teaches (example 12, columns 12-16) adding to the deodorant solution glycerol (glycerin and glycerol are both synonyms of each other) at a concentration of 200 ppm. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inherent concentration value of glycerin in the Swicegood composition to 200 ppm since at such a concentration value, glycerin (glycerol) acts as an antiseptic agent that leads to the

additional destruction of microorganisms in combination with the grapefruit seed extract component.

4. Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Swicegood (the Kitchen Physician) in view of Cooper et al (U.S.P.N. 6,379, 720).

With respect to claim 68, the Swicegood reference teaches an aqueous composition having grapefruit seed extract (NutriBiotic Grapefruit Seed Extract) diluted in glycerin (page 1, paragraph 1 used for disinfecting drinking water (the user selected fluid, page 3, paragraphs 6-7). The Swicegood reference further teaches (pages 2-3) various small concentration values for the disinfecting composition; however, the reference fails to recite the use of copper metal and also fails to teach the concentration values for copper metal and for grapefruit seed extract as disclosed in claim 68. The Cooper reference, which in the art of disinfecting aqueous systems by combining plant extract (Hops extract) with biocides, teaches the following: a hops extract concentration range (col.3, lines 37-38) between 0.1 to about 10 ppm (ppm = mg/L) and copper sulfate as the source of copper ions at a concentration range (col.4, line 14 and lines 25-27) between 0.1 to about 10 ppm. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the concentration of the grapefruit seed extract in the composition of the Swicegood reference and to additionally include the copper sulfate biocide agent since plant extracts at such a concentration range are effective in controlling biological fouling (Cooper reference, col.3, lines 31-33) and adding copper sulfate to the composition of plant extract results

to superior disinfecting results with significant less use (Cooper reference, col.4, lines 28-30).

5. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al (U.S.P.N. 4,490,389) in view of Kobayashi et al (U.S.P.N. 4,909,986).

With respect to claim 69, the Nelson reference discloses contact lens disinfecting composition by soaking the lens in a treatment solution (user selected fluid). The disinfecting composition of the Nelson reference includes copper at a concentration between 0.1 and 25 ppm (col.2, lines 51-59) and glycerin (col.4, lines 27-28) at low concentration range (col.4, lines 30-32). However, the Nelson reference fails to teach the glycerin concentration value disclosed in claim 69. The Kobayashi reference, which is in the art of treating liquids by spraying a deodorizing liquid composition onto liquids, teaches including a preservative or antiseptic compound such as glycerol (col.9, lines 57-62) into the deodorizing composition at legally accepted levels. Furthermore, the Kobayashi reference teaches (example 12, columns 12-16) adding to the deodorant solution glycerol (glycerin and glycerol are both synonyms of each other) at a concentration of 200 ppm. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inherent concentration value of glycerin in the Nelson composition to 200 ppm since at such a concentration value, glycerin (glycerol) acts as an antiseptic agent that leads to the additional destruction of microorganisms in combination with the disinfecting copper compound.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Standardized Grapefruit Extract by Rennie Talyor shows that Grapefruit extract composition that includes glycerin acts as a disinfectant. The Baker (U.S.P.N. 5,387,394) reference, the Quillin (U.S.P.N. 6,899,903) reference, the Rajaiah et al (U.S.P.N. 6,500,406) reference and the Harich (U.S.P.N. 5,425,944) reference all show grapefruit seed extract as an antimicrobial agent.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.


8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD D. CRISPINO can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Monzer R. Chorbaji  
Patent Examiner  
AU 1744  
01/28/2006

Handwritten signature of Monzer R. Chorbaji, consisting of the letters 'MRC' in a stylized, cursive script.Handwritten signature of Richard Crispino, featuring a large, stylized 'R' followed by 'Crispino' in a cursive script.

RICHARD CRISPINO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700